

Aiken, David J. "Property Valuation May Be Reduced by Proximity to Livestock Operation." Cornhusker Economics 1 May 2002.

Available Online: <http://agecon.unl.edu/pub/cornhusker/05-01-02.pdf>

Summary: Bruce Livingston successfully challenged the Nebraska Tax Equalization and Review Commission, claiming that his 1999-built \$329,000 home near his hog complex was unfairly valued by the tax board for \$540,000 in 2000. Livingston's appraiser valued the home at \$325,000.

Commentary:

Marbery, Steve. "Landmark Tax Case." *Listsers*. 21 April 2002.

Available Online: <http://lists.iatp.org/listarchive/archive.cfm?id=48493>

Cantrell, Patty. "Michigan Tax Tribunal Recognizes Hog Factory Stench: State Court Recognizes Factory Farm Abuse." Michigan Land Use Institute Online 7 Dec 1999.

Available Online: <http://mlui.org/farms/fullarticle.asp?fileid=4527>

Summary: Five rural residents of Mecosta County, Michigan were awarded a reduction in the taxable value of their homes by 35% on November 18, 1999, due to odors from an AFO that moved to the area in 1997. Convincing evidence included a statement from an appraiser about the property's unlikely sales: "Across the road from subject is a large pig farm operation, and the smell is terrible."

Clement, D. "Knee deep in feedlot feuds." Fedgazette Online July 2001.

Available Online: <http://www.minneapolisfed.org/pubs/fedgaz/01-07/feedlots.cfm>

Summary: This short article examines the impact of large scale animal feeding operations on surrounding residents in various states throughout the Midwest. Clement notes Waseca County, MN, where the county assessor created a "smell location chart" that determines the financial impact on a home's value considering proximity to the feedlot, size of the operation, and the presence of a manure lagoon.

Dilly, Barbara. "Tax Policy and Swine Production in Iowa, United States." Journal of Ecological Anthropology Vol. 10 (2006):45-60.

Available Online: <http://jfaniowa.org/reports/DillyCAFOsLocalTaxPolicy.pdf>

Abstract: This paper examines county level decision-making regarding swine confinement permits in Iowa. The case study follows a 2003 Iowa State Legislature ruling that gives county supervisors the option to adopt a detailed Department of Natural Resources Master Matrix

plan for swine manure management. In this research, I sought to understanding environmental policy conflicts associated with industrialized hog production. This study examines four counties in North Central Iowa located in the region of rapidly expanding, corporate-formed, swine confinement operations. Ethnographic field research was conducted from May 2003 to October 2006. Comparison of qualitative and quantitative data for each of these four counties reveals different stakeholder and agroecology dynamics at the level of county decision-making processes. I explain these differences in terms of a family farm-corporate agribusiness continuum which reflects diverse local agricultural attitudes and practices related to environmental values, economic rationalities and social investments. In some rural areas where family farm agricultural attitudes and practices related to livestock production persist along side of corporate agribusiness, there exist some county assessors, engineers, and auditors who seek to protect family farm social and cultural interests because of their stabilizing effect on the local environmental and economy. This study explains why local county-level decision-makers have become proactive in supporting family farms and local businesses by challenging state policies biased in favor of corporate agribusiness.

Hamed, M., T. G. Johnson, and K. K. Miller. "The Impact of Animal Feeding Operations on Rural Land Values." Community Policy Analysis Center May 1999.

Available Online: <http://www.cpac.missouri.edu/library/reports/landvalue-saline/landvalues.pdf>

Summary: In this Saline County, MO study of 99 properties near a CAFO, it was found that increased proximity to the CAFO negatively impacted the value of the property. From the study: "Based on the averages of collected data, loss of land values within 3 miles of a CAFO would be approximately \$2.68 million... Average loss of land value within this 3-mile area would be approximately \$112 per acre."

Herriges, J. A., S. Secchi, and B. Babcock. "Living with Hogs in Iowa: The Impact of Livestock Facilities on Rural Residential Property Values." Center for Agricultural and Rural Development August 2003.

Available Online: http://www.econ.iastate.edu/research/webpapers/paper_10683.pdf

Abstract: We estimated a hedonic model to explain variations in residential sales price with standard house attributes, such as number of bedrooms and square feet of living space, as well as the effects of distance and density of livestock feeding operations. We find that livestock operations have an overall statistically significant effect on property values. Predicted negative effects are largest for properties that are downwind and close to livestock operations. In addition, feeding operations that are moderate in size have more impact than do large-scale operations, most likely reflecting age, type, and management practices of the moderate-sized operations.

Key Points: Distance from a livestock operation, direction (due to wind) and the size and kind of the operation in question all impact a home's value. Babcock's report found that smaller

units had a more negative impact than larger operations, perhaps because larger operations are newer and better operated.

Summary Article:

Babcock, Bruce. "Living with Hogs in Rural Iowa." Center for Agricultural and Rural Development August 2003.

Available Online:

<http://www.extension.iastate.edu/AGDM/articles/babcock/BabAug03.htm>

Commentary:

Neil, Ruth. "Study Shows Effect of Hog Confinements on Rural Home Values." Iowa State Daily 3 Sept 2003.

Available Online: <http://media.www.iowastatedaily.com/media/storage/paper818/news/2003/09/03/News/Study.Shows.Effects.Of.Hog.Confinements.On.Rural.Home.Values-1096288.shtml>

"Judge awards Iowa couple \$100,000 in hog lot lawsuit." Associated Press. Amarilla Globe-News 12 Jan 2002.

Available Online: http://www.pmac.net/AM/hoglot_lawsuit.html

Summary: A hog operation of 4,000 head was ordered to pay \$100,000 in damages to a couple who claimed that the farm "was a nuisance that attracted bugs and harmed their emotional and physical health."

Kilpatrick, John A. "Concentrated Animal Feeding Operations and Proximate Property Values." The Appraisal Journal 39:3 (2001): 301-306.

Available Online: http://www.pmac.net/AM/property_values.html

Summary: John Kilpatrick argues in this 2001 article that any properties located near a concentrated animal feeding operation (CAFO) will bear a negative impact, which increases as distance between the property and CAFO decreases. Kilpatrick's argument is supported by seven case studies that illustrate some of the negative impacts (health, property value) felt by property owners near CAFOs. Kilpatrick advises appraisers to consider the seven following issues when valuing property near a CAFO: 1) type of property, 2) distance between the property and CAFO, 3) physical manifestations (ex. air quality, insects), 4) scientific tests (ex. on air or water quality), 5) impacts on property use (livability, rental use, etc.), 6) marketability evidence (time on market of comparable properties), and 7) impact on highest and best use.

Milla, K., M.H. Thomas, and W. Ansine. "Evaluating the Effects of Proximity to Hog Farms on Residential Property Values: A GIS-Based Hedonic Price Model Approach." URISA Journal 17:1 (2005): 27-32.

Available Online: <http://www.urisa.org%7c~www.urisa.org/prev/Journal/Vol17No1/Milla.pdf>

Summary: In this North Carolina study, the authors examine the relationship between the distance from animal feeding operations (particularly hog farms) and residential property sales. The study finds that there is a significant negative impact on the values of homes located near hog farms, and that the higher the concentration of animals, the greater the negative impact.

Palmquist, R. B., F. M. Roka, and T. Vukina. "Hog Operations, Environmental Effects, and Residential Property Values" *Land Economics* 73:1 (1997): 114-124.

Available Online (purchase only):

[http://links.jstor.org/sici?sici=0023-7639\(199702\)73%3A1%3C114%3AHOOEAR%3E2.0.CO%3B2-A#abstract](http://links.jstor.org/sici?sici=0023-7639(199702)73%3A1%3C114%3AHOOEAR%3E2.0.CO%3B2-A#abstract)

Abstract: A hedonic study of rural residential house sales in southeastern North Carolina was conducted to determine the effect of large-scale hog operations on surrounding property values. An index of hog manure production at different distances from the houses was developed. It was found that proximity caused a statistically significant reduction in house prices of up to 9 percent depending on the number of hogs and their distance from the house. The effect on the price of a house from opening a new operation depended on the number of hogs already in the area.

Key Points (from "Report on Animal Feeding Operations and Rural Colorado Communities"): "In North Carolina results indicated that home values decreased \$0.43 for every additional hog in a five mile radius of the house. The study found a decrease of 4.75% (about \$3,000 in the value of residential property within 0.5 miles of a 2,400 head finishing operation where the mean home price was \$60,816. As homes were located farther from an operation, the decrease in total home value decreased to less than \$100 at 2 miles away."

Park, D., A. F. Seidl, and S. P. Davies. "The Effect of Livestock Industry Location on Rural Residential Property Values." *Colorado State Economic Development Report, Colorado State University* Sept 2004.

Available Online:

<http://dare.agsci.colostate.edu/csugecon/extension/docs/impactanalysis/edr04-12.pdf>

Abstract: A hedonic study of rural residential house sales in southeastern North Carolina was conducted to determine the effect of large-scale hog operations on surrounding property values. An index of hog manure production at different distances from the house was developed. It was found that proximity caused a statistically significant reduction in house prices of up to 9 percent depending on the number of hogs and their distance from the house. The effect on the price of a house, from opening a new operation depended on the number of hogs already in the area.

Ready, R. and C. Abdalla. "GIS Analysis of Land Use on the Rural-Urban Fringe: The Impact of Land Use and Potential Local Disamenities on Residential Property Values and on the Location of Residential Development in Berks County, Pennsylvania." AERS Staff Paper No. 364. June 2003.

Available Online:

Long Report: <http://landuse.aers.psu.edu/study/BerksLandUseLong.pdf>

Short Report: <http://landuse.aers.psu.edu/study/BerksLandUseShort.pdf>

Summary: A CAFO was found to negatively impact a home's value by 4.1% at 800 meters, and the devaluation extended to around 1600 meters away from the facility. Medium-sized operations were found to have the most negative impact on house prices, and the impact did not vary by species. The average impact of a CAFO on 119 homes within 1600 meters of the facility was \$1,803, with a total of \$215,000 on all 119 homes, 1.7% of the assessed value of the homes.

Commentary:

Hopey, Don. "Hog Heaven? Study Finds Large Hog Farms Lower Property Values." [Post-Gazette.com](http://www.post-gazette.com) 7 July 2003.

Available Online:

<http://www.post-gazette.com/healthscience/20030607hogsenviron1p1.asp>

Seidl, A. and J. Davies, eds. "Report on Animal Feeding Operations and Rural Colorado Communities." Agricultural and Resource Policy Report, Colorado State University Feb 1999.

Available Online:

<http://dare.agsci.colostate.edu/csusagecon/extension/docs/impactanalysis/feeding.pdf>

Key Points: (pgs. 10-11) "An Iowa study found that agricultural land values increased due to an increased demand for "spreadable acreage." However, total assessed value, including residential, decreased in proximity to a hog operation. In Illinois and Iowa county assessors have, somewhat arbitrarily, discounted the assessed value of homes within 0.5 miles of a hog operation by 40%, within 1 mile by 30%, 1.5 miles by 20%, and 2 miles by 10%, much greater discounting than the N.C. study would warrant (Padgitt & Johnson, 1998)."

Thomas, M., P. Goldsmith, J. Kim, W. Ansine, and N. Bruton. "A Comparison of Three Recent Hedonic Models of Hog Farm Discommodity in Costal North Carolina: Evidence of Diseconomies of Scale and Brown Zones." College of Agriculture, University of Kentucky May 2003.

Available Online: http://www.ca.uky.edu/sera-ieg/pubs/thomas_full_draft.pdf

Abstract: Three Hedonic Price Models (HPM), using Geographic Information Systems (GIS) data, were developed and used to quantify the impact of swine externality on residential property values in Craven and Onslow counties, North Carolina. The models demonstrate

that, on average, swine externality causes a statistically significant reduction in residential property values. For the average valued house located one mile from a swine farm, the marginal affect of an additional animal results in a one time cost to home owners ranging from \$0.48 to \$2.04. Evidence from one model suggests diseconomies of scale may exist for the discommodity of hog externality. In other words, smaller operations (5,200 or less hogs) have a smaller cumulative impact on residential property owners than larger farms (13,000 hogs). All three models provide evidence that environmental setbacks of less than two miles will likely offer little protection to residential property owners.

Summary Articles

Weida, William J. “The CAFO: Implications for Rural Economies in the US.” Department of Economics, Colorado College and the Global Resource Action Center for the Environment 24 February 2004.

Available Online: http://www.sustainabletable.org/issues/docs/YaleEconOnly_NDI.pdf

--. “The Evidence for Property Devaluation Due to the Proximity to CAFOs.” Department of Economics, Colorado College and the Global Resource Action Center for the Environment January 2002.

Available Online: http://www.factoryfarm.org/docs/Weida_Prop_Devaluation.pdf

--. “Nutrient Management Issues.” Department of Economics, Colorado College and the Global Resource Action Center for the Environment 4 April 2001.

Available Online: <http://www.factoryfarm.org/docs/nutrientmgmtissues.pdf>

Fact Sheets with Summaries of Literature

“False Promises! Costly Reality! What hog confinements really cost Iowa’s counties!” Care4Iowa.com.

Available Online:
http://www.factoryfarm.org/docs/Iowa_Assn_of_Counties_HOG_PIECE11.pdf

Ulmer, A. and R. Massey. “Animal Feeding Operations and Residential Land Value.” Agricultural Economics Extension, University of Missouri 2006.

Available Online:
<http://muextension.missouri.edu/explorepdf/miscpubs/mp0748.pdf>